KCEAA CCT Course

Kanawha County Emergency Ambulance Authority will be sponsoring a Critical Care Transport Class beginning Thursday, March 3rd, 2011 to run for 12 consecutive weeks with the exception of April 28th (there will be no class that day) and will end on Thursday, May 19th, 2011. We cordially invite anyone interested in taking this challenging class to read the information provided and contact us if you should have any questions. Classes will be conducted every Thursday at KCEAA in our auditorium located at 601 Brooks Street. Final testing will be on Thursday, May 19th, 2011. Information about the course can be found on our website at www.kceaa.org. If you or anyone in your organization would be interested in enrolling for this course please submit the application and course fee to:

KCEAA
P.O. Box 292
Charleston, WV
25321
Attn: Kim Johnson

KCEAA must have a minimum of 20 students registered by Tuesday, February 1st, 2011 to sponsor the class. If we do not have enough students enrolled it will be cancelled. All money would be reimbursed.

Once we have 20 students the money will be nonrefundable.

The Critical Care Transport Course was designed for the EMT-Paramedic and Registered Nurse. Students will obtain the knowledge and skills necessary to manage the critical patient during transfers between hospitals, specialty referral centers and extended care facilities. Individuals interested in CCT Training should contact the KCEAA Training Division at (304) 345-2312, ext. 119. Seating is limited and will be on a first come, first serve basis. Interested applicants must send their application **with** payment no later than February 1st, 2011. You will not be guaranteed a spot until payment is received. We cannot accept any students after the February 1st deadline.

Tuition for the CCT course will be $750.00 to be made payable to KCEAA. The program is affiliated with Mountwest Community and Technical College and will offer 6 hours of 200 level undergraduate college credit. Tuition is non-refundable and non-transferable after February 1st, 2011. Prior to that date, a 25% fee ($187.50) will be assessed for any withdrawal or transfer.

Clinical hours will be obtained at CAMC General, Memorial and Women's and Children's hospitals and they require the following before a student is allowed in the clinical setting:

- JCAHO videos to be viewed and completion form instructions are included in this letter on pages 5-7. This MUST be completed before the first day of class on Thursday, March 3rd, 2011.

CAMC Health Examination/Immunizations. The School (KCEAA) shall certify and supply CAMC, if requested, evidence satisfactory to CAMC that each Student participating in the Practicum has documented immunity to the following communicable diseases:

- Rubella
- Rubeola
- Mumps
- Varicella (chickenpox)
- Documentation of annual TB skin testing (PPD) is required or if positive, documentation of evaluation and/or treatment by a healthcare provider
- In addition, if the student will be completing rotations during flu season, documentation of the seasonal flu shot is required. The flu season has been identified from October 1 through April 30
- Completion of the Hepatitis B vaccine series is strongly recommended for all students who may be exposed to blood/body fluids in the performance of their clinical experience.

Proof of these will be required the first day of class. If you are unable to locate your records you can go to your local health department and have titers done. If it shows you are not immune you can have the shots done there.

The course fee will cover the MCTC tuition, one clinical shirt, a student photo I.D., course materials and handouts; skills station supplies, and other miscellaneous items.

For more information contact the KCEAA Training Division by e-mail or by phone at (304) 345-2312

Kim Johnson, ext. 119 kimjohnson@kceaa.org

Mark Kerns, ext. 141 markkerns@kceaa.org

Paramedic/Nurse Requirements to be eligible to take the WVOEMS exam for this class are listed below:

Current certifications in the following:

- ACLS
- ITLS/PHTLS or TNCC
- PEPP

This course is **very** challenging and requires a commitment from the student. It is strongly recommended that each participant report to class on time. In addition to the classroom sessions, each student is required to complete the following prior to completion of the class:

- 16 hours of ride time on a designated CCT truck (Two 8 hour shifts)
- Clinical Time
    - 4 hours in PICU
    - 4 hours in Labor and Delivery
    - 20 hours in ICU settings

ALL **clinical rotations and CCT ride time** ***MUST*** **be completed by May 11th, 2011 and all forms must be completed and turned in to Kim Johnson no later than May 12th, 2011 at 0800. Failure to do so will make the candidate ineligible for testing and would result in failure of the course. It is strongly encouraged and recommended that each student begin clinical rotations and CCT ride time as quickly as possible to meet this requirement. Do not wait until the last minute.**

KCEAA Critical Care Transport
Course Application

Name: _____ Clinical Shirt Size: _____

SS#: _____ Date of Birth: _____

Address: _____

City, State, Zip Code: _____

Home Phone #: _____ Work Phone # : _____

Cell Phone #: _____ Pager #: _____

Email Address: _____

Employer/Sponsoring Agency: _____

Address: _____

City, State, Zip Code: _____

Agency Contact Person: _____

Agency Contact #: _____

EMT-P #: _____ WVOEMSA/EMSP #: _____

Driver's License: _____ WV Nursing License # : _____

Years of emergency EMS/Critical Care Experience: _____

If you have a current certification in the classes listed below please mark all that apply:

- ☐ ACLS or ACC
- ☐ CPR
- ☐ NRP
- ☐ ITLS/PHTLS/TNCC
- ☐ EVOC
- ☐ PEPP

Method of Payment:

- ☐ VISA
- ☐ Master Charge
- ☐ Check
- ☐ Money Order

Card #: _____

Exp. Date: _____

Do you have prehospital experience Yes_____ No _____

Do you have ER experience? Yes _____ No _____

Do you have ICU experience Yes _____ No _____

Requirements for admission into clinical areas

In order to be permitted access into the clinical areas of CAMC you are required to go to the website below and watch 6 videos. They are listed below. Do not click on the CAMC Teays Valley. **You must have this completed before the first day of CCT class.**

http://camcinstitute.org/jcaho/

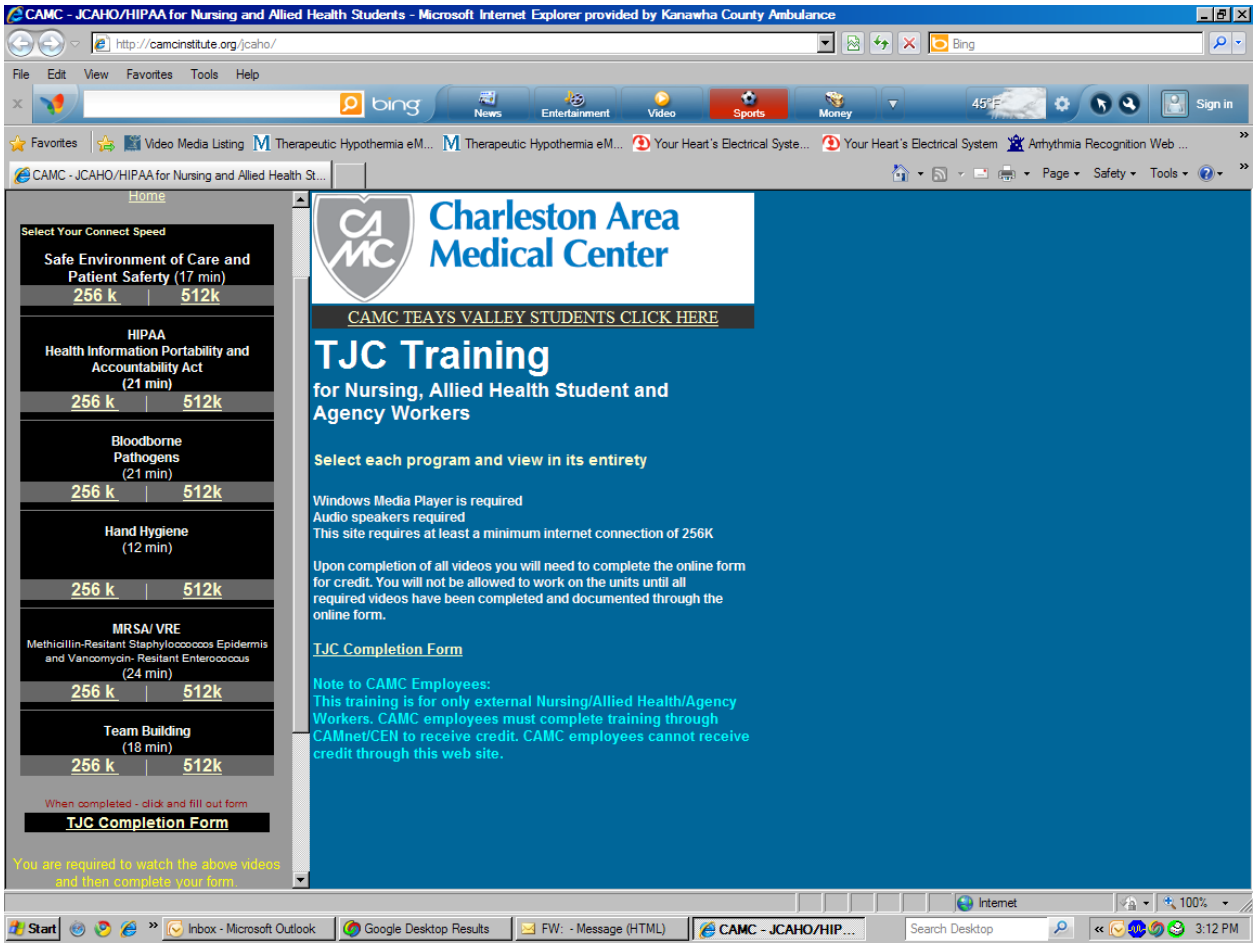
Safe Environment of Care and Patient Safety (17 min)
256 k | 512k
HIPAA Health Information Portability and Accountability Act (21 min)
256 k | 512k
Bloodborne Pathogens (21 min)
256 k | 512k
Hand Hygiene (12 min)
256 k | 512k
MRSA/ VRE Methicillin-Resitant Staphyloccoccos Epidermis and Vancomycin- Resitant Enterococcus (24 min)
256 k | 512k
Team Building

When completed - click and fill out form

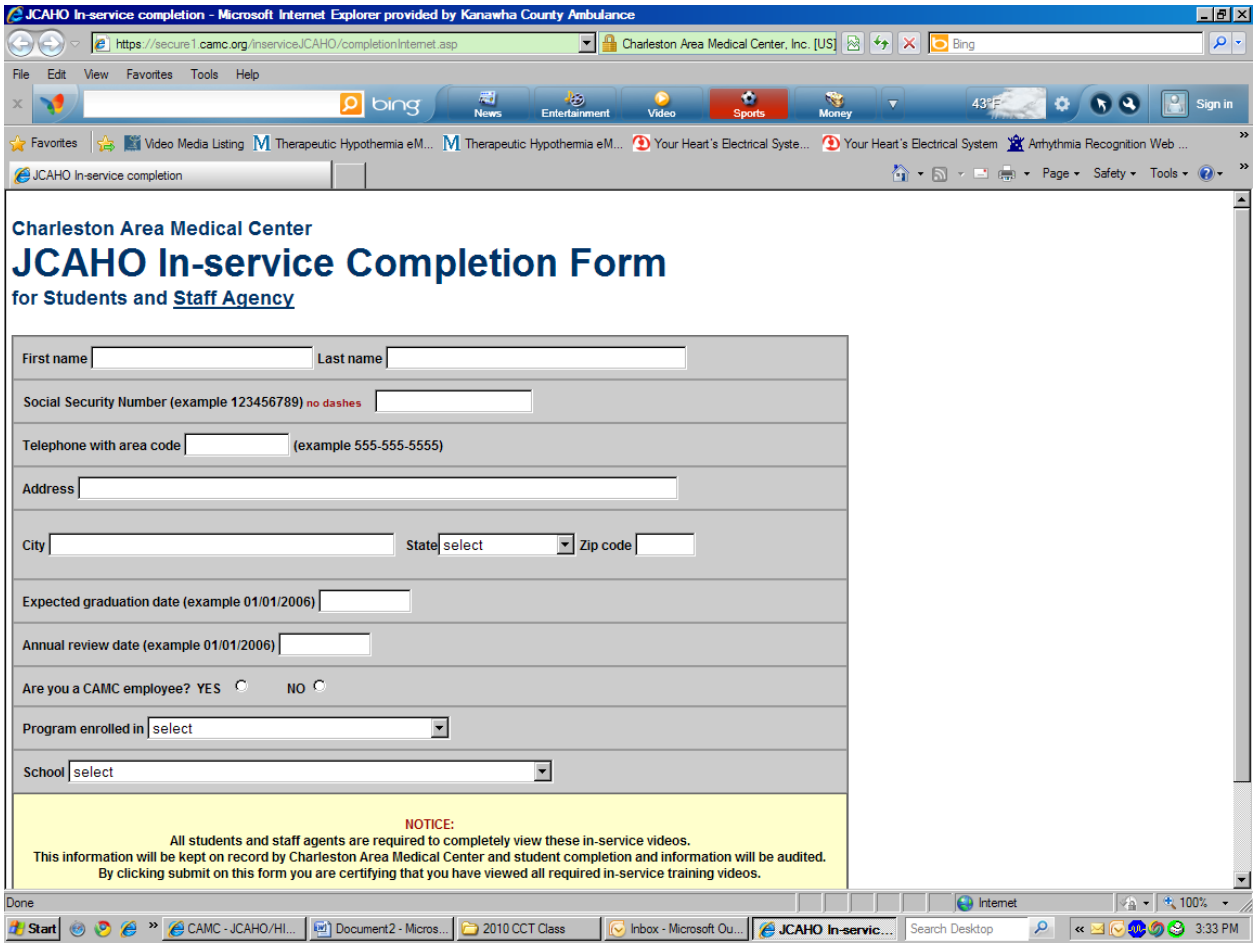
TJC Completion Form

You are required to watch the above videos and then complete your form.
This information will be kept on record.

By completing this form you are certifying that you have successfully completed this required training.



This is what the completion form looks like.



Submit online and print a copy to bring to class. I will need this the first day of class.

On behalf of Kanawha County Emergency Ambulance Authority I would like to welcome you to the Critical Care Transport Course sponsored in conjunction with Mountwest Community and Technical College. Enclosed you will find the syllabus and course description. The class will begin Thursday, March 3rd, 2011 and end Thursday, May 19th, 2011. It will run consecutively for 12 weeks **with the exception of April 28th. There will be no class on that day.** Class times are 0800-1630. **We ask that the first day of class you be here by 0730** so we can take care of a few items (Pictures for ID badges, getting your polo shirt required for unit rotations and orientation to the building). It is strongly recommended that you be at class on time each week so you do not miss valuable information. Any agency sponsoring a student is also strongly encouraged to ensure your employee is able to get to class on time and attend every class.

We are located at 601 Brooks Street in Charleston, WV.
Take the Leon Sullivan Way Exit (Exit 100)
Go to the second stop light and turn left. At the next stoplight turn left. Pass through the next stoplight and before getting onto the entrance ramp to the interstate we are located on the left. There are 3 flagpoles in the front of our building. We are across from the Power Alley ballpark. We ask that you park on the side of the building or at the main entrance, where the circle is located.

No food or drinks are allowed in the auditorium with the exception of bottled water. You are welcome to bring your own or we have a bottled water machine. Please feel free to contact any of the following if you should have any questions:

Kim Johnson	345-2312, ext. 119
Mark Kerns	345-2312, ext. 141

All students are required to bring a simple calculator to class each week. Strong deficiencies identified in past classes have been medication calculation and 12 lead ECG recognition and treatment. If you are deficient in these areas you are encouraged to take classes on these subjects prior to attending this class. KCEAA does offer classes on these subjects.

Directions to CCT stations for ride time

Belle Medic (59)

From Charleston, follow I-77 South/I-64 East toward Beckley. Take Exit 96 (Belle/Midland Trail) and follow Rt. 60 East for 7.9 miles. Turn left at the Exxon onto Witcher Creek Rd. At the stop sign behind Exxon, turn right. Station is joined with the Belle Fire Dept beside of Witcher Creek Baptist Church. It is a block building. Please do not park on church property.

Station number 304-949-1375

Nitro Medic (329)

Take I-64 and get off of the Nitro exit. At the stoplight make a left and go to 19th street. At the stop light make a right and travel approximately 200 yards on Republican Way. The ambulance will be sitting inside the fenced area next to the red brick building.

Station number 304-755-7027

KCEAA Communications Center 304-342-1107 or 1-800-560-2055

Kim Johnson 304-345-2312, Ext. 119

WVOEMS / KCEAA

2011 Critical Care Transport

Program

Mountwest Community and Technical College

WVOEMS / KCEAA

Mountwest Community and Technical College

Critical Care Transport Program

Syllabus

Course: **Critical Care Transport**

Instructors: Dr. John Turley, M.D. KCEAA Medical Director

Kimberly Johnson, RN, CCRN, Program Director

Mark Kerns, EMT-P, CCT-P, Education Supervisor

Course Coordinator: Kim Johnson, RN, CCRN (304-345-2312, ext. 119)

Office Hours: 0800-1630

Class Location: KCEAA Central Office, 601 Brooks Street, Charleston, WV

Class Time: 0800-1630

Class Dates: Thursday, March 3rd through Thursday, May 19th with final testing on Thursday, May 19th, 2011 **(No class on April 28th, 2011)**

Prerequisites: Registered Nurse and/or Paramedic with current ACLS, ITLS or (PHTLS or TNCC), and PEPP certifications. It is the responsibility of the Individual/individual's squad STO to ensure all required classes are current so the candidate can take the WVOEMS approved exam.

Current flu vaccine, TB test and viewing of the CAMC JCAHO videos with completion form

Undergraduate College Credit awarded by Mountwest Community and Technical College is 6 hours.

Program Description:

The Critical Care Transport Course was designed for the EMT-Paramedic and Registered Nurse. You will obtain the knowledge and skills necessary to manage the critical patient during transfers between hospitals, specialty referral centers and extended care facilities.

Instructional Procedures:

The Kanawha County Emergency Ambulance Authority/ Marshall Community and Technical College Critical Care Transport Program will meet once a week at 8-hour sessions for a total of 11 weeks. Classroom sessions will consist of lecture, lab, and self-study sessions. Many types of teaching aids, such as power point presentation, films, overhead and various types of medical equipment will be used in the classroom to facilitate the learning process.

Student Evaluation:

Exams and skill evaluations will be given after each module is completed, with a final written and practical examination. In addition, it will be required that each participant complete 28 hours of clinical rotation and two 8 hour increments of ride time on a designated and approved CCT truck. Failure to complete clinical requirements by the deadline will result in an incomplete grade and failure of the course. Graded material will be worth the following amounts:

Exams	100 Points
Skill Evaluation	Pass/Fail
Clinical Rotation	Pass/Fail

The total points that the student earns divided by the total points possible will determine the student's final grade. The course grading scale is as follows:

93 – 100	A
85 – 92	B
76 – 84	C
66– 75	D
Below 66	F

Critical Care Transport Written Examination

Introduction

This section describes the Critical Care Transport written examination

Exam Content

The critical care transport written examination consists of 100 multiple choice items contained in 12 module areas based on the 2003 WVOEMS approved Critical Care Transport Curriculum.

Two hours are allowed for the completion of the examination.

Scoring

A passing score requires that the participant obtain a minimum overall score of 76% or greater.

Failure to obtain the minimum overall passing score constitutes complete failure of the written examination.

A student must maintain a final grade of 76% or higher on the combined module quizzes or they will not be eligible to take the final exam. They will not be eligible for testing. They would be required to take another full course.

Retesting opportunities and requirements

Participants that fail the final written examination with a score of 65% or less must complete another approved WVOEMS Critical Care Transport Course.

The passed portion of the examination, either the written or the practical, will remain valid for a 12 month period from the date of the exam, provided all other requirements from WVOEMS are met. Participants not completing the failed portion of the examination within that 12-month period will be required to repeat the complete program.

Participants failing the written examination may re-apply if:

A score on the final written examination of 70% to 75% will allow the participant to re-apply without any additional education by submitting another completed application and fee for re-examination.

A score on written examination of 65% to 69% will allow the participant to re-apply only if they submit documentation verifying that they have successfully completed a WVOEMS Critical Care Transport Refresher Course, and by submitting another completed application and fee for re-examination.

Participants are only allowed one additional opportunity to pass the written examination, provided all other requirements for WVOEMS Critical Care Transport are met.

Participants that fail the second attempt of the written examination must complete another approved WVOEMS Critical Care Transport Course.

Results reporting

Participants should allow three to four weeks from examination date for their examination results. The results will be issued by the WVOEMS.

Critical Care Transport Practical Examination

Introduction

This section describes grading policies and results required for certification for the Critical Care Transport practical examination.

Pass/Fail Policies and retesting

Grading of the practical examination is on a Pass/Fail basis. In many cases, retakes of failed skills are allowed.

Failure of 50% or more of the practical skills:

This constitutes failure of the entire practical examination. The participant must complete a new, WVOEMS Critical Care Transport Course.

Failure of less than 50% of the practical skills:

Participant must submit a completed application and fee for practical re-examination.

Participants are allowed three attempts to pass the practical examination (one full attempt is defined as completing all skill stations and two retesting opportunities if so entitled).

Participants failing a second retest must submit documentation verifying that they have successfully completed a WVOEMS Critical Care Transport Provider/Refresher Course, prior to submitting another completed application and fee for re-examination.

Should the participant fail the third and final attempt of the practical examination, the participant must complete a new, WVOEMS Critical Care Transport Course.

Make up exams:

Missed exams must have a valid excuse, and must be made up no later than the next class after the original exam was administered.

Student Contributions:

Each student will be required to do all assignments, be present for all lectures and skill exams, participate in required clinical time, turn in student clinical evaluation sheets, and submit course evaluations when indicated.

Clinical Evaluation Forms:

Each student will be required to complete a clinical evaluation form for each clinical rotation completed. Upon completion of each form, the preceptor should give additional comments to enhance the overall educational experience. All clinical evaluation forms shall be kept in a notebook, and submitted to the course instructor when the rotation is completed. Please do not wait until the end of the class to turn them in. Failure to submit necessary clinical information will constitute course Incompletion or Failure. Incompletion or failure of the course will make the student candidate ineligible for Critical Care Transport testing.

Attendance:

All material is important to your success, both as a student and a healthcare provider. Attendance is a priority. Students absent more than two times without a valid excuse may be dismissed from the program.

Clinical Training:

The Critical Care Transport student will be required to complete 28 hours of clinical (hospital) training during the course. Clinical sessions will be scheduled by the instructor, and announced before you will report to the clinical setting. Before any participant is permitted to perform any clinical skills, they must have passed necessary skill evaluations and any written testing. In addition, the participant must have Critical Care Transport Clinical Evaluation Forms and objectives with them to present to the preceptor for clarification. Attendance for clinical training will follow the same format as any other class session. The clinical evaluation forms and objectives will be available on the KCEAA website at www.kceaa.org

Academic Dishonesty Policy:

If any instructor observes academic dishonesty or any action viewed as unethical on the part of the participant, immediate dismissal from the course will follow. No refunds shall be granted. **At no time will any student be allowed to copy any quiz or exam. Any quiz/exam not returned to the coordinator after viewing will be expelled from class and will not receive a refund.**

Meeting with Instructor:

Every effort is made to be responsive to the student's learning needs. Please arrange a meeting with the course instructor if you have any questions, difficulties, or concerns about your progress in the class.

Student Auditing:

Periodically other students from previous Critical Care Transport Programs may sit in on this course for remediation purposes. When these students are in attendance, they should be treated with the same respect you have with other classmates. These students are possibly completing areas to make them eligible for testing.

Class Outline:

In cases of unforeseen circumstances, the instructors and order in which the lectures are presented are subject to change without notice.

Course Requirements

Clinical requirements are subject to change prior to the start of the class by authority of the state Deputy director for CCT.

MODULE 1

INTRODUCTION TO CRITICAL CARE TRANSPORT (CCT)

Overall Objective: Student will identify, relate and apply the roles and responsibilities involved in being a member of the Critical Care Transport (CCT) team.

Enabling Objectives: Upon completion of this module, the student will be able to:

1.1 Describe and define CCT.
1.2 Discuss the history and evolvement of CCT Air and Ground in West Virginia.
1.3 Identify personnel and agency requirements for legal recognition as interfacility transport providers.
1.4 Define and understand the composition of both critical care transport teams and class 3 interfacility transports (C3-IFT).
1.5 Have the understanding of each team member's scope of practice and responsibilities in the transport environment.
1.6 Recognize and understand terminology used in the critical care environment.
1.7 Will be able to read and understand current transport guidelines and classification of medications/procedures charts as instituted by the WVOEMS.
1.8 Will be able to describe and complete the process of patient care and documentation in the CCT environment.
1.9 Discuss laws governing and regulating interfacility transfers, such as HIPAA, EMTALA.
1.10 Explain CCT course completion requirements, legal recognition, and renewal requirements.

MODULE 2

LAB DATA INTERPRETATION

Overall Objective: Student will increase knowledge of common lab tests and combine interpretation, presenting signs and symptoms, treatment, and therapeutic modalities to improve patient outcomes.

Enabling Objectives: At the conclusion of this module, the student will be able to:

- 2.1 Define and state the normal lab tests (CBC, CCP, Cardiac Panel, etc.), values, and ranges routinely encountered in the critical care setting.
- 2.2 Identify causes of abnormal lab values and how they impact the management of CCT patients.
- 2.3 Interpret arterial blood gas (ABG) levels and plan for management of acid-base imbalances.
- 2.4 Practice interpreting and documenting common lab abbreviations, ratios, and documentation diagrams.
- 2.5 Differentiate acute vs. chronic findings related to transfer diagnosis and formulate a plan of care.
- 2.6 Interpret and manage patient scenarios in the classroom setting.

After completion of this module the participant will be required to:

Complete a Written Exam

MODULE 3

PHARMACOLOGY

Overall Objective: The student will be able to integrate the knowledge of body systems and the principles of pharmacology to formulate an impression and manage the pharmacologic needs of the CCT patient. To further meet those needs, they must be able to identify, calculate, and administer medications appropriately and safely for all patients.

Enabling Objectives: At the conclusion of this module, the CCT applicant will be able to:

3.1 Discuss and explain medication terminology that is necessary for safe patient management.
3.2 Identify and explain the CCT Drugs according to their classification, mechanism of action, indications, contraindications, side effects, and common dosages.
3.3 Demonstrate proper procedures and techniques used to identify approved transport medications and the ability to obtain accurate reference information for safe administration.
3.4 Perform appropriate drug dosage calculations and conversions accurately and efficiently using mathematic equations.
3.5 Demonstrate knowledge of the abbreviations commonly used and those which are considered unsafe and fall into the “Do Not Use” list.
3.6 Convert between systems of metric and apothecary units.
3.7 Utilize CCT Guidelines and written medication orders to manage medication regimens, administration, and titration.
3.8 Manipulate medication delivery systems efficiently, including intravenous tubing and infusion pumps.
3.9 Prepare medications for safe administration using selected routes of administration.
3.10 Discuss volume expanding medication infusions and the administration procedures for the administration of blood and blood products.

After completion of this module the participant will be required to

Pass a Practical Exam

- **Administration of Medications**
- **Medication Calculations**

Complete a Written Exam

MODULE4

Respiratory Management

Overall Objective: Students will understand diseased states of the respiratory system and perform thorough assessments to identify patients with actual or potential respiratory compromise. Students will demonstrate the ability to treat patients with respiratory distress or airway compromise with basic/advanced interventions and resuscitation procedures in the best interest of patient care.

Enabling Objectives: Upon completion of this module, students will be able to:

4.1 Review the functional and structural anatomy of the respiratory system.
4.2 Review oxygen delivery devices and flow rates.
4.3 Perform an adequate assessment of the respiratory system.
4.4 Auscultate various normal and abnormal breath sounds.
4.5 Understand and utilize respiratory diagnostic and monitoring tools.
4.6 Identify various pulmonary complications / obstructive disease processes and the treatment interventions.
4.7 Practice calculating formulas to estimate oxygen tank consumption based on tank type and flow rates.
4.8 Adequately recognize and treat patients presenting with respiratory distress or airway compromise.
4.9 Understand and state the rationale for the use of RSI.
4.10 Know the indications, contraindications, dosages, and order of all the drugs used for RSI.
4.11 Utilize standardized assessments and mnemonics for the patient presenting with characteristics or injuries suggestive of a difficult airway or intubation.
4.12 Describe alternate methods such as secondary or failed airway devices helpful in establishing an airway when endotracheal intubation cannot be accomplished.
4.13 Discuss and perform a surgical cricothyroidotomy and chest decompression utilizing commercial kits and patient manikins.
4.14 Calculate ideal body weight for ventilator management.
4.15 Set-up, manage, and troubleshoot ventilators for specific patients during transfer.
4.16 Discuss CPAP and BiPap utilization in the transport setting.
4.17 Review and discuss respiratory medications.

After completion of this module the participant will be required to:

Pass a Practical Exam

- **Chest Decompression**
- **Single or Dual Lumen Secondary Airway Devices**
- **Endotracheal Intubation / BVM Ventilation**
- **Rapid Seqeunce Intubation**
- **Ventilator Management**
- **Surgical Cricothyroidotomy**

Complete a Written Exam

MODULE 5

Cardiac Management

Overall Objective: Students will be able to appropriately manage the cardiovascular patient through physical assessment, interpretation, and utilization of cardiac guidelines, including but not limited to, 12-lead ECG monitoring, invasive electrical therapy, balloon pump support, and pharmacological therapies.

Enabling Objectives: After completion of this module, the student will be able to:

5.1 Review and discuss cardiac anatomy, physiology, and terminology.
5.2 Identify abnormal heart sounds and murmurs.
5.3 12-Lead ECG Interpretation to include axis determinations, hemiblocks, bundle branch blocks, STEMI, and rate/rhythm abnormalities.
5.4 Augmented 12-Lead ECG and 15-Lead ECG assessments.
5.5 Management of myocardial infarctions, left and right pump failure, CHF, arrhythmias, and cardiac related diseases.
5.6 Identify other possible complications encountered with cardiac patients and how to manage them in the transport environment.
5.7 Identify the purpose and function of other devices that assist the compromised cardiac patient. These include pacemakers, AICD's, ventricular assist devices (VAD), and balloon pumps.
5.8 Discuss and review cardiac specific and vasoactive medications pertinent to critical management of cardiac patients.

After completion of this module the participant will be required to:

Pass a Practical Exam

- **Static**
- **Dynamic**

Complete a Written Exam

MODULE 6

SHOCK MANAGEMENT

Overall Objectives: The student will be familiar with the different types of shock, treatment modalities, pharmacologic resources, and hemodynamic monitoring used for the patient with circulatory compromise.

Enabling Objectives: After completion of this Module, the student will be able discuss and define the following:

6.1 Define and discuss the key components of shock.
6.2 Review terminology associated with the care, assessment, and treatment of shock.
6.3 Assess and differentiate between the three major phases of shock.
6.4 Plan, assess, treat, and manage each category of shock: Hypovolemic, Obstructive, Distributive, Cardiogenic.
6.5 Utilize assessment parameters and vitals signs to determine successful management or progression of the shock state with evaluation of mental status, perfusion, vital sign, mean arterial pressure (MAP), and pulse pressure (PP)
6.6 Review fluid resuscitation principles across the populations.
6.7 Review pharmacologic management and blood product administration principles.
6.8 Review and practice hemodynamic parameters obtained via arterial and central venous lines.

After completion of this module the participant will be required to:

Pass a Practical Exam

- **Hemodynamic monitoring devices**

Complete a Written Exam

MODULE 7

NEUROLOGICAL MANAGEMENT

Overall Objective: The student will be able to identify the patient's status and understand appropriate management.

Enabling Objectives: After completion of this Module, the student will be able to discuss and define the following:

7.1 Review anatomy and physiology of the neurological system.
7.2 Discuss and practice neurological assessments.
7.3 Review neurological diseases and their management.
7.4 Assess and manage acute and chronic stroke patients in the transport environment.
7.5 Assess and manage seizure patients in the transport environment.
7.6 Review neurological trauma and management.
7.7 Assess and manage spinal cord injuries in the transport environment.
7.8 Assessment and manage skull fractures and increased intracranial pressure in the transport environment.

Complete a Written Exam

MODULE 8

Obstetrics Management

Overall Objectives: Participants will recognize and manage normal and complicated pregnancies and deliveries through proper assessment of OB patients.

Enabling Objectives: After completion of this module, the student will be able to:

8.1 Define basic anatomy and physiology of the reproductive structures.
8.2 List the anatomical and physiological changes affecting the obstetric patient.
8.3 Describe the assessment method for gynecologic and obstetric patients prior to transport.
8.4 Describe the general management of the obstetric patient, including transport decisions, fetal heart tones (FHT), estimated date of confinement (EDC).
8.5 Discuss the specific complications of pregnancy that may cause pain, fetal or maternal distress or demise.
8.6 Assess and manage preterm labor during transfer to a tertiary women's facility.

8.6 Describe a normal childbirth and progression through the stages of labor up to and after delivery.
8.7 Describe deliveries: abnormal presentations
8.8 Initiate appropriate interventions of normal care for the mother and newborn following delivery.

Complete a Written Exam

MODULE 9

GI, GU, RENAL MANAGEMENT

Overall Objective: The student will be able to assess and manage a critical patient with genitourinary, gastrointestinal and renal complications.

Enabling Objective: After completion of this module, the student will be able to:

9.1 Renal Objectives
- 9.1.1 Identify the anatomic structures of the urinary tract.
- 9.1.2 Describe the major functions of the kidney.
- 9.1.3 Compare and contrast acute and chronic renal failure, including the definition, presenting signs and symptoms, course, and complications.
- 9.1.4 Identify the etiologies of prerenal, intrarenal, and postrenal failure.

9.2 Gastrointestinal objectives
- 9.2.1 Understand the anatomy and physiology of the GI system.
- 9.2.2 Understand the signs and symptoms associated with disorders of the GI system and how to prepare and manage the patient for transport.
- 9.2.3 Know the proper procedure for insertion of a nasogastric/orogastric tube.

9.3 Genitourinary Objectives
- 9.3.1 Identify and understand the structures which comprise the genitourinary system
- 9.3.2 Understand and perform an adequate assessment of the GU system
- 9.3.3 Understand signs and symptoms associated with disorders of the GU system and how to prepare and manage the patient for transport.
- 9.3.4 Know the proper insertion technique of a Foley catheter for a male and female patient

Complete a Written Exam

MODULE 10

Pediatric Management

Overall Objective: Student will be able to integrate pathophysiological principles and assessment findings to manage, treat, and transport the critical care pediatric patient with multi-system trauma, end-stage disease presentation, acute presentations of chronic conditions and single- or multi-disease etiologies.

Enabling Objectives: At the completion of the Module, the student will be able to discuss:

10.1 Definitions
10.2 Growth, Development, Anatomy and Physiology Review
10.3 Approach, Physical Examination, and Assessment
10.4 Routes of Administering Medications
10.5 Transport management of medical conditions
10.6 Transport management of traumatic injuries
10.7 Respiratory distress and emergency airway management
10.8 Shock, volume resuscitation, and maintenance fluid management.

Complete a Written Exam

MODULE 11

Special Topics

Radiology Review

Overall Objectives: At the end of this class the participant should understand the basic concepts and skills required to correlate pathological and clinical data with radiographic findings on chest films.

Enabling Objectives: At the conclusion of this module, the student will be able to:

11.1 Demonstrate a basic knowledge of radiologic interpretation and common landmarks
11.2 Gather clinical and radiological data on patients with disease processes
11.3 Identify normal anatomy of the chest and structures as seen on the radiograph
11.4 Evaluate forappropriate positions for tubes, catheters and other medical devices on chest and C-spine films
11.5 Demonstrate ability to recognize common conditions (e.g. collapsed lobes) and life threatening conditions (e.g. pneumothorax) on chest radiographs
11.6 Demonstrate a clinically appropriate diagnostic treatment

Burn Management

Objectives: At the end of this class the participant should be able to:

11.2.1 Recall the anatomy & physiology of the skin

11.2.2 Develop an understanding of burn injuries from thermal (heat) sources and (depending upon presentation length) burns from electrical, chemical, and radiation sources

11.2.3 Perform appropriate initial and focused assessments of burn injuries, including realistically accurate burn depth and extent estimations by recognized measurement methods

11.2.4 Provide appropriate medical and psychological treatment for burn injuries, including decontamination and IV fluid administration using the Parkland formula

Hemodynamic Monitoring

Objectives: At the end of this class the student should be able to interpret hemodynamic parameters and recognize treatment of life-threatening conditions. The student should also be able to:

11.3.1 Describe and understand hemodynamic physiology and terms

11.3.2 Discuss possible contraindications and complications of the central venous,arterial, and PA catheters.

11.3.3 Waveform recognition, analysis, and measurement parameters for central venous, arterial, and PA catheters.

11.3.4 Effects of Pharmacologic Agents on Hemodynamics

- Positive Inotropes & vasoactive drugs
- Describe factors affecting contractility
- Beta Adrenergic Agonists

11.3.5 Set-up and assessment of the PA catheter and leveling and zeroing through the invasive monitoring port during transport

Complete a Written Exam

MODULE 12

Clinical Case Scenarios/Putting it all together

Overall Objectives: Given critical care transport scenarios, the student will be able to demonstrate the correct management of a patient using advanced knowledge, skills and equipment acquired in this Critical Care Transport Course.

Enabling Objectives: At the conclusion of this module, the participant will be able to:

12.1 Safely and effectively complete all skills station components as required in given patient scenarios.

12.2 Thoroughly assess and manage patients using a comprehensive approach to patient care incorporating:
- Lab Data
- Radiologic Studies
- Pharmacotherapy
- Comprehensive assessment and patient report

12.3 Manage patients in the transport environment utilizing
- CCT Guidelines
- Online Medical Direction and Physician Orders
- Extensive clinical experience and medical knowledge

Pass a Practical Exam
- **12-Lead ECG**
- **Endotracheal Intubation**
- **Failed Airway Device (LMA/PLA/King Airway, etc)**
- **Invasive Monitoring**
- **IV Pump/Medication Calculations**
- **Oral Scenario**
- **Rapid Sequence Induction (RSI)**
- **Relief of Pneumothorax**
- **Surgical Airway**
- **Transvenous Pacemaker**
- **Ventilator Management**

Complete a Written Exam

Kanawha County Emergency Ambulance Authority
Mount West Community and Technical College
Critical Care Transport
Student Clinical Objectives

Participant Name: _____

All participants reporting to clinical rotations should present to the clinical preceptor a clinical check sheet, a list of clinical area objectives, and be wearing their uniform with nametag. If any participant reports without all the above, the participant shall be dismissed from clinical rotation. The clinical check list will be the guideline that both that participant and preceptor must use during clinical rotation. Rotating areas will consist of MSICU at CAMC General, Coronary Care Unit at CAMC Memorial, PICU and Labor & Delivery at CAMC Women's and Children's Hospital. In these areas the participant needs to accomplish the broad range of objectives listed below:

1. Observe and obtain patients history and complete physical exam.
2. Review chart thoroughly including labs, radiology reports and physicians progress notes.
3. Review any radiology films available
4. Observe and participate with the maintenance of basic and advanced airway management.
    a. Suctioning
        i. Orally
        ii. Nasally
        iii. Endotracheally
        iv. Tracheally
    b. Oxygen administration by various devices
    c. Incentive Spriometer
    d. Chest PT
    e. Administration of Breathing Treatments
    f. Ventilator modes and settings
5. Observe and assist with peripheral or central IV placement and maintenance, including Swan Ganz Catheters, and focusing on:
    a. Sterile techniques
    b. Cardiac output
    c. Pulmonary artery wedge pressure
    d. All swan pressure readings and wave forms, how to scale, zero and level
6. Observe and assist with administration of medications as well as calculating drug doses on their own and showing work on the skill sheet. Participants must calculate all IV infusions that the patient would be receiving.
7. Observation and assist with Pulse Ox, ETCO2, pressure reading on ventilators, Accucheck, etc.
8. Read 12 Lead EKG's of patient and compares finding with preceptor and document finding on clinical skills sheets.
9. Observe IABP mechanics, inflation/deflation waveforms, timing ratio, and troubleshooting.

10. Observe ICP pressure monitoring devices, waveforms, maintenance and releasing of pressure.

Clinical Objectives:

1. Participants report to charge nurse to be assigned to clinical preceptor.
2. Participants introduce himself/herself to the clinical preceptor and give a list of objectives
3. Participants receive patient report of assigned patient from the clinical preceptor.
4. Participants receive patient charts from those giving a report from clinical preceptor
5. Participants develop a plan of action (care) and document what interventions would be necessary.
6. Participants collaborate with preceptor in reference to his/her plan of action. Preceptor should also document additional comments.
7. Participants document any additional comments
8. Participants and preceptor complete clinical evaluation sheet for patient contact
9. A minimum of one patient contact should be completed at each rotation
10. Participants must complete a summary sheet for each clinical rotation, and attach to the clinical rotation form.
    a. Please include the following in the summary sheet:
        i. Consider the patient you are currently caring for and imagine you have to transport them to another facility 2 hours away. What considerations and concerns would you have? Provide an explanation of how you would complete the transport. Start from beginning to end.
        ii. Did you feel the clinical rotation time was valuable and if not provide an explanation.
        iii. Document the patient's TMD (Thyromental distance) and their Mallampoti score (refer to module 4)
        iv. List possible complications the patient could develop based on their diagnosis and hospital course and what you would do to correct.

ALL clinical rotations and CCT ride time _MUST_ be completed by May 11th, 2011 and all forms must be completed and turned in to Kim Johnson no later than May 12th, 2011 at 0800. Failure to do so will make the candidate ineligible for testing and would result in failure of the course. It is strongly encouraged and recommended that each student begin clinical rotations and CCT ride time as quickly as possible to meet this requirement. Do not wait until the last minute.

Kanawha County Emergency Ambulance Authority
Mount West Community and Technical College
Critical Care Transport Participant
Clinical Evaluation Form

Participant Name: _____ Starting Time: _____ Ending Time: _____

Hospital Clinical Area: _____ Date: _____

Patient Chief Complaint: Admitting Diagnosis:_____

Patient Age: _____ Patient Sex: _____ Other Information: _____

Current History:

_____

_____

_____

Past Medical:

_____

_____

_____

Current Medications:

_____

_____

_____

Allergies:

_____

_____

_____

Physical Assessment (Present Complaint)

_____

_____

_____

Plan of Action and Treatment (Care Plan)

_____

_____

_____

Participant's comments

_____

_____

_____

Preceptor's comments

_____

_____

_____

Participant Signature: _____ Date: _____

Preceptor Signature: _____ Date: _____

WVOEMS/KCEAA/MCTC Labor and Delivery Rotations
Kanawha County Emergency Ambulance Authority

Student's Name: _____

Date: _____ .

Objective	Student Date/Initials	Standard of Practice Intervention/Skills	Validated by Date/Initials
The CCT student will observe in the assessment of the mother and the fetus		Complete Maternal Assessment • Physical status	
		• Fetal status	
		• Labor status	
		• Chief complaint	
		• Fetal movement	
		• Fetal heart rate obtained by Doppler	
		• Uterine Contractions Palpate abdomen for tenderness, contractions, intensity and resting time	
		• Membrane Status Description of fluid (color, odor, volume)	
The student will observe in the management of a vaginal/cesarean delivery whenever possible		• DTR (Deep Tendon Reflexes) in the patient receiving Tocolytic Therapy	

Preceptor Signature: Date:

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
IV Pump Management

Name: Examiner:

Date:

Time Start: Time End: **Student has 10 minutes to complete**

You are transporting a 45 year-old female that weighs 100 kg from a small hospital. The patient was admitted for cardiogenic shock. On your arrival you find the following drips running:

- Dopamine 800 mg in 250 ml of NS running at 30 ml/hr. How many mcg/kg/min is the patient receiving?
- Levophed 4 mg in 250 ml and the doctor orders 10 mcg/min. What should the rate be?
- Normal Saline bolus of 500 ml over 30 minutes using a 10-drop set. How many drops per minute?

Answers:

-
-
-

Student must show math work and attach to check sheet

IV Pump Management	**Possible Points**	**Points Awarded**
Problem 1		
Calculate the correct dose of the medication infused	2	
Determine concentration of medication	1	
Set the rate and set the volume	2	
Install the IV tubing	1	
Start the drip	1	
Problem 2		
Calculate the correct dose of the medication	2	
Problem 3		
Calculate the correct dose of the medication	2	
Total Time: _____ **Total**	**11**	

Note: This station must be completed within 10 minutes

Critical Criteria:

_____ Failure to begin administration of medication on pump within 3 minutes
_____ Failure to calculate 2 out of 3 correct doses of the medication to be infused
_____ Contaminates equipment or site without appropriately correcting situation
_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport

Critical Care Transport Practical Examination

12 Leads ECG

Name: Examiner

Date: Signature:

Time Start: Time End: **Student has 10 minutes to complete**

Identify Strip # 1	1	
Treatment	2	
Identify Strip # 2	1	
Treatment	2	
Identify Strip # 3	1	
Treatment	2	
Identify Strip # 4	1	
Treatment	2	
Total	**12**	

Note: No points for treatment may be awarded if the diagnosis is incorrect.
Document all responses in spaces provided.

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Pacemakers

Name: Examiner:

Date: Signature:

Time Start: Time end: **Student has 5 minutes to complete**

	Possible Points	Points Awarded
Utilization of Transvenous Pacer		
Identify the need for use	1	
Select proper setting for pacer (Synchronous/Asynchronous)	1	
Selects correct rate	1	
Sets correct milliamps for capture	1	
Starts pacer and makes adjustments as needed	1	
Time end: _____ **TOTAL**	**5**	

Note: This station must be completed within 5 minutes

Critical Criteria:

_____ Failure to select appropriate settings
_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Oral Station

Name: Examiner:

Date: Signature:

Scenario: _____

Patient Assessment

	Possible Points	Points Awarded
Complete an organized assessment and integrated findings to expand further assessment	3	
Complete init, focused, and ongoing assessments	2	
Performed an incomplete or disorganized assessment	1	
Did not complete an initial assessment	0	

Patient Management

Managed all aspects of the patient's condition and anticipated further needs	3	
Appropriately managed the patient's presenting condition	2	
Performed an incomplete or disorganized management	1	
Did not manage life-threatening conditions	0	

Interpersonal relations

Established rapport and interacted in an organized, therapeutic manner	3	
Interacted and responded appropriately with hospital staff, patient, patient family, and crew	2	
Used appropriate communication techniques	1	
Used inappropriate communication techniques	0	

Integration (Impression, verbal report, and transport decision)

Stated correct impression and pathophysiological basis, provide succinct and accurate verbal report including/psychological concerns, and considered alternate transport destinations	3	
Stated correct impression, provide succinct and accurate verbal report including/psychological concerns, and considered alternate transport destinations	2	
Stated correct impression, provide inappropriate verbal report, or transport destinations	1	
Stated incorrect impression, or did not provide verbal report	0	
TOTAL	**12**	

Critical Criteria:

_____ Failure to appropriately address any of the scenario's "Mandatory Actions"

_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Surgical Cricothyrotomy

Name: Examiner:

Date: Signature:

	Possible Points	Points Awarded
Gather necessary equipment for the procedure and obtain consent if time allows	1	
Place the patient in a supine position with the neck in a neutral position	1	
Palpate the cricothyroid membrane between the thyroid and cricoid membranes for orientation	2	
Prep area (sterile technique) if time allows	1	
Stabilize the thyroid cartilage with non-dominant hand.	1	
Using the supplied 6 cc syringe attached to the 18 gauge TFE catheter introducer needle, advance it through the cricothyroid membrane into the airway at a 45 degree angle to the frontal plane in the midline in a caudad fashion while aspirating	2	
Confirm verification of entrance into the airway by aspiration on the syringe resulting in free air return	1	
Remove the syringe and leaving the TFE catheter or needle in place and advance the soft flexible end of the wire guide through the TFE catheter and into the airway several centimeters.	2	
Remove the TFE catheter or needle, leaving the wire guide in place	1	
Stabilize the cartilage and make a lateral incision in the middle using the #15 short handle scalpel blade.	1	
Advance the lubricated, handled dilator, tapered end first into the connector end of the airway catheter until the handle stops against the connector.	2	
Advance the emergency airway access assembly over the wire guide until the proximal stiff end of the wire guide is completely through and visible at the handle end of the dilator. Maintaining the wire guide position, the participant will advance the emergency airway access assembly over the wire guide with a reciprocating motion and completely into the trachea	1	
The participant will remove the wire guide and dilator simultaneously	1	
The participant will fix the emergency airway catheter in place with the supplied cloth tape strip or the Velcro device in a standard fashion.	2	
Inflate the cuff with the recommended amount of air	1	
Observe lung inflations and auscultate chest for adequate ventilation	1	
Secure tube to prevent inadvertent dislodging and attach dilator to patient	2	
The participant will explain the importance of not discarding the dilator.	1	
TOTAL	**24**	

Critical Criteria:

_____Failure to state the indications/contraindications for the placement of a Cricothyrotomy

_____Failure to identify the proper landmarks for insertion of a Cricothyrotomy

_____Failure to identify the importance of not discarding the dilator

_____Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Relief of Pneumothorax

Name: Examiner:

Date: Signature:

Insertion of Cook Catheter

	Possible Points	Points Awarded
Identifies the indications/contraindications	1	
Gathers all necessary equipment	1	
Locates the appropriate landmarks for insertion (2nd intercostal, midclavicular) above the 3rd rib.	2	
Preps area (Sterile technique) if time allows.	1	
Makes a small incision with scalpel through the skin, subcutaneous tissue, muscle and fascia but not through the parietal pleura	1	
Inserts the device into the pleural cavity at the level of the 2nd anterior intercostal space just above the upper boarder of the 3rd rib	1	
Advance the device through the incision into the chest through the pleura while maintaining pressure upon the stylet within the needle cannula	2	
Remove the inner needle and determine whether there is free flow of air	1	
Advance the catheter so that all side ports are within the pleura space. The distal tip should be positioned towards the extreme apex of the pleural space.	1	
Attach the connecting tube and Heimlich valve to the catheter and apply adhesive tape and secure to the chest.	2	
Assess the patient for results.	1	
TOTAL	**14**	

Note: This station should be completed within 5 minutes

Critical Criteria:

_____ Failure to state the indications/contraindications for the placement of a cook catheter chest tube

_____ Failure to identify the proper landmarks for insertion of a chest tube

_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the back side of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Insertion of Cobra PLA/King Airway

Name: Examiner:

Date: Signature:

Insertion of Cobra PLA	Possible Points	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Hyperoxygenate patient immediately with bag-valve-mask or NRB with 100% oxygen	1	
Gather necessary equipment for the procedure and check for leaks	2	
Select the appropriate size for the patient	1	
Deflate the cuff, fold back the cuff from the Cobra PLA head to facilitate insertion	1	
Lubricate entire end of cuff, front and back prior to insertion	1	
Extend head and advance the Cobra PLA into the hypo-pharynx through the resistance of the soft tissue until moderate resistance is felt, then pull back slightly.	2	
Inflate the cuff. (Only enough air to obtain an appropriate seal)	1	
Observe lung inflation and auscultate chest for adequate ventilation	1	
Select the appropriate size ET tube. Place it through the Cobra PLA after being adequately lubricated.	2	
Inflate the ET tube and auscultate breath sounds bilaterally	1	
Confirms placement of ET. Deflate the cuff to the Cobra PLA and ventilate with BVM.	2	
Secure device and confirm that the device remains properly secured.	1	
TOTAL	**17**	

Critical Criteria:

____ Failure to take or state body substance isolation precautions
_____ Failure to immediately ventilate the patient
_____ Failure to deflate the cuff prior to insertion
_____ Interrupts ventilations for more than 20 seconds
_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Rapid Sequence Induction

Name: Examiner:

Date: Signature:

Scenario: _____

Rapid Sequence Induction

	Possible Points	Points Awarded
Monitor ABC's and maintain C-spine control if trauma patient	1	
Monitor ECG and O2 saturations.	1	
Hyper-oxygenate the patient	1	
Assess patient for airway complications (TMD, Mallampoti, sufficient ability to use BVM and oral/nasal airway device)	2	
Prepare necessary equipment for intubation and have BVM and other airway adjunct available	1	
Calculate and draw up correct doses of medications to be used and label (Assures administration of Lidocaine or Atropine if indicated)	3	
Recheck IV site(s) and ensure patency.	1	
Administer sedative and the defasciculating dose of paralytic	1	
After 1 minute, paralyze the patient with Succinylcholine 1.0 - 1.5-mg/kg IV push. Allow paralysis to take effect.	2	
State that the airway would be secured by, (intubation, LMA/PLA, or combitube)	1	
TOTAL	**14**	

Medication	Dosage	Correct Order
Special Considerations • Atropine • Lidocaine		
Sedative • Versed (.05 to 0.1 mg/kg) • Etomidate (0.2 to 0.6 mg/kg)		
Consider Pain Medication • Fentanyl (1-2 mcg/kg)		
Defasciculating dose of paralytic • Norcuron .01 mg/kg • 1/10 the dose		
Neuromuscular Blocker • Succinylcholine 1.0-1.5 mg/kg		
Paralytic • Norcuron (0.1 mg/kg)		

Critical Criteria:

_____ Failure to complete an airway assessment for degree of difficulty using BVM/airway adjunct

_____ Failure to oxygenate the patient before or after administration of paralytic

_____ Failure to appropriately label all medication prior to administration

_____ Delivers improper drug or dosage (wrong drug, incorrect amount, or pushes at inappropriate rate

_____ Failure to have alternate adjunct airways readily available

_____ Failure to inquire if patient has any risk factors for malignant hyperthermia or hyperkalemia

_____ Failure to administer additional sedation once intubation is completed if student elects to paralyze the patient with Norcuron for transport if Etomidate was used

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport

Practical Examination
Invasive Monitoring

Name: Examiner:

Date: Signature:

Strip # 1 **Right Ventricular Waveform**	1	
Treatment **Will cause extensive ectopy if not repositioned. Swan should be pulled back to the right atrium so as to provide a CVP waveform. This will allow safe transport of the Swan. If MD is present he may choose to advance swan back to pulmonary artery.**	2	
Student's interpretation=		
Scale **30**		

Strip # 2 **Pulmonary Artery Waveform**	1	
Treatment **This is correct placement. No treatment is needed. Continue to monitor. Note position of Swan catheter**	2	
Student's interpretation=		
Scale **30**		

Strip # 3 **Wedge Waveform**	1	
Treatment **Need to check and make sure balloon is deflated. If balloon is deflated, then Swan is in too far. It would then need to be pulled back until PA waveform reappears. Must be pulled back slowly.**	2	
Student's interpretation=		
Scale **10-30**		
TOTAL	**9**	

Critical Criteria:

_____ Failure to identify a Strip
_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Ventilator

Name: _____ Examiner: _____

Date: _____ Signature: _____

	Possible Points	Points Awarded
Turn machine on	1	
Hook to oxygen	1	
Attach vent tubing to ventilator	1	
Set mode SIMV, AC, CPAP Based on scenario	2	
Set rate (12-20) Based on scenario, ABG results and hemodynamics	1	
Set tidal volume (7-10ml/kg) Based on scenario and hemodynamics	1	
Set peep Based on scenario and hemodynamics	1	
Set FIO2 (21%-100%) Based on scenario	1	
After all settings are completed set the lock/unlock control button	1	
TOTAL	**10**	

Critical Criteria:

_____ Failure to obtain correct ventilator settings.
_____ Failure to attach Oxygen to ventilator
_____ Failure to select the correct ventilator mode
_____ Failure to select the correct ventilator FIO2

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Insertion of Laryngeal Mask Airway

Name: _____ Examiner: _____

Date: _____ Signature: _____

	Possible Points	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Hyper oxygenate patient immediately with bag-valve-mask or NRB with 100% oxygen	1	
The participant will gather all necessary equipment needed for procedure Gather necessary equipment for the procedure and check for leaks	2	
The participant will press mask tip upwards against the hard palate to flatten it out and advance the mask into the pharynx using the index finger.	1	
With neck of manikin flexed and head extended, press the LMA into the posterior pharyngeal wall using the index finger.	1	
Complete the insertion by exerting cephalad pressure by the nondominant hand prior to removing the index finger (as long as there is no trauma	1	
Inflate LMA and secure in place with tape.	1	
Observe lung inflation and auscultate chest for adequate ventilation.	1	
TOTAL	**9**	

Critical Criteria:

_____ Failure to take or state body substance isolation precautions
_____ Failure to immediately ventilate the patient
_____ Interrupts ventilations for more than 20 seconds
_____ Performs or orders any harmful or dangerous actions or interventions

Please document your rational for checking any of the above critical items on the backside of this check sheet

KCEAA Critical Care Transport
Critical Care Transport Practical Examination
Endotracheal Intubation

Name: _____ Examiner: _____

Date: _____ Signature: _____

	Possible Points	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Opens the airway manually	1	
Ventilate patient immediately with bag-valve-mask with 100% oxygen	1	
Note: Examiner now informs candidate no gag reflex is present and patient accepts adjunct		
Checks equipment for: Cuff leaks (1 point) Laryngoscope operational with bulb tight (1 point)	2	
Positions head properly	1	
Inserts blade while displacing tongue	1	
Elevates mandible with laryngoscope	1	
Introduces ET tube and advances to proper depth	1	
Inflates cuff to proper pressure and disconnects syringe	1	
Direct ventilation of patient	1	
Confirms proper placement by auscultation bilaterally over each lung and over epigastrium	2	
Note: Examiner now asks, "If you had proper placement, what would you except to hear?		
Secures ET tube (may be verbalized)	1	
TOTAL	**14**	

Critical Criteria:

____ Failure to take or verbalize body substance isolation precautions

____ Failure to initiate ventilations within 30 seconds after applying gloves or interrupts ventilations for greater than 30 seconds at any time

____ Failure to voice and ultimately provide high oxygen concentration [at least 85%]

____ Failure to ventilate patient at a rate of at least 10/minute

____ Failure to provide adequate volumes per breath (maximum 2 errors/minute permissible)

____ Failure to hyperventilate patient prior to intubation

____ Failure to successfully intubate within 3 attempts or Uses teeth as a fulcrum

____ Failure to assure proper tube placement by auscultation bilaterally and over the epigastrium

____ Inserts any adjunct in a manner dangerous to the patient

Please document your rational for checking any of the above critical items on the backside of this check sheet

2011 WVOEMS / KCEAA

Mount West Community and Technical College

Critical Care Transport Course

Student / Instructor Class Outline

Date/Hours	Topic	Instructor
March 3rd, 2011	**Day 1**	
0730-0900	Pictures for ID badges/Clinical Shirts/Parking MCTC Registration Overview of class	Kim Johnson
0900-1000	Introduction to CCT	Mark Kerns
1000-1010	Break	
1010-1100	Introduction to CCT continued	
1100-1200	Lunch	
1200-1300	Lab Data Interpretation	Kim Johnson
1300-1310	Break	
1310-1345	Lab data Interpretation	
1345-1355	Break	
1355-1430	ABG Interpretation	Kim Johnson
1430-1600	ETCO2	Kim Johnson

WBVBRN hours awarded = 6.6 hours or 330 minutes

March 10th, 2011	**Day 2**	
0800-0900	Test (Introduction, Lab data and ABG Interpretation)	
0900-1100	Pharmacology	Kim Johnson
1100-1200	Lunch	
1200-1300	Pharmacology continued	
1300-1310	Break	
1310-1410	Ventilator Management	Kim Johnson
1410-1420	Break	
1420-1620	Medication Calculation	Mark Kerns

WVBRN hours awarded = 7.2 hours or 360 minutes

March 17th, 2011	**Day 3**	
0800-0900	Test (Pharmacology, Vent management and Medication Calculations)	
0900-1100	Respiratory Management	Kim Johnson
1100-1200	Lunch	
1200-1330	RSI	Kim Johnson
1330-1345	Break	
1345-1630	Skills • Surgical Cricothyrotomy • Cook Catheter Chest Tube • Intubation/King airway, PLA • RSI/Pump Setup	

WVBRN hours awarded = 7.5 hours or 375 minutes

March 24th, 2011 **Day 4**

0800-0900	Test (Respiratory/Ventilator Management/ETCO2/RSI)	
0900-1100	Cardiac Management	Mark Kerns
1100-1200	Lunch	
1200-1330	Cardiac Management Continued	
1330-1345	Break	
1345-1545	Invasive Monitoring	Kim Johnson

WVBRN hours awarded = 6.6 hours or 330 minutes

March 31st, 2011 **Day 5**

0800-0900	Test (Cardiac Management)	
0900-1100	12 Lead ECG	Mark Kerns
1100-1200	Lunch	
1200-1330	12 lead ECG continued	Mark Kerns
1330-1630	Skills /Review • Invasive monitoring • 12 lead ECG	

WVBRN hours awarded = 7.8 hours or 390 minutes

April 7th, 2011 **Day 6**

0800-0900	Test (12 Lead ECG)	
0900-1100	GI/GU	Dr. Turley
1100-1200	Lunch	
1200-1400	Renal	Dr. Turley
1400-1415	Break	
1415-1630	DKA/DI/SIADH	Dr. Turley

WVBRN hours awarded = 7.5 hours or 375 minutes

April 14th, 2010 **Day 7**

0800-0900	Test (GI/GU/Renal)	
0900-1100	Neurological Management	Candace Burger, RN
1100-1200	Lunch	
1200-1300	Neurological Management	Candace Burger, RN
1300-1315	Break	
1315-1515	OB	TBA
1515-1530	Break	
1530-1630	OB	

WVBRN hours awarded = 7.2 hours or 360 minutes

April 21st, 2011 **Day 8**

0800-0900	Test (Neuro/OB)	
0900-1100	Shock Management	Mark Kerns
1100-1200	Lunch	
1200-1300	Pediatric Management	Mark Kerns
1300-1315	Break	
1315-1515	Pediatric Management Continued	
1515-1630	Review	

WVBRN hours awarded = 7.5 hours or 375 minutes

April 28th, 2010 **No Class**

May 5th, 2011 **Day 9**

0800-0900	Test (Shock/Pediatric)	
0900-1000	Burns	Kim Johnson
1000-1100	Radiology	Dr. John Turley
1100-1200	Lunch	
1200-1430	Radiology	
1430-1440	Break	
1440-1630	Skills	

WVBRN hours awarded = 7.6 hours or 380 minutes

May 12th, 2011 **Day 10**

0900-1000	**Test (Radiology/Burns)**
1000-1100	**Skills Review**
1100-1200	**Lunch**
1200-1600	**Skills Review**

WVBRN hours awarded = 6.0 hours or 300 minutes

Final Testing-Written and Practical
May 19th, 2010 **Day 11**

Clinical Rotation Total Hours 28

CAMC PICU / Labor & Delivery-	4 hours required
CAMC CCU	4 hours required
CAMC MSICU/NMICU	20 hours required

Critical Care Transport Rides 16 hours (must be two 8 hour shifts)

In the event you do your ride time but do not complete a CCT call the preceptors are required to give you simulated calls and allow you to work through them. You must act as the primary provider. These simulated or actual calls must be documented.

Updates to the curriculum/clinical requirements may be made by the State Deputy Medical Director for CCT prior to the start of the class. In that instance, the outline of classes and allotment of times are subject to change.

Updated November 8th, 2010